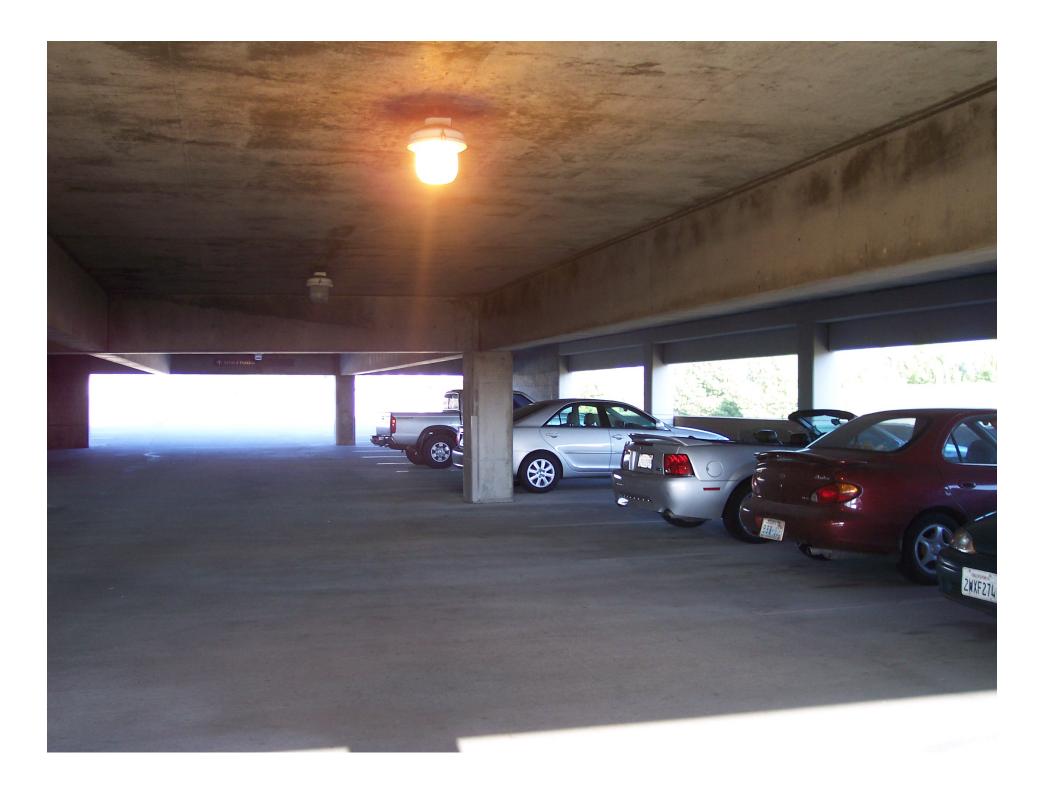
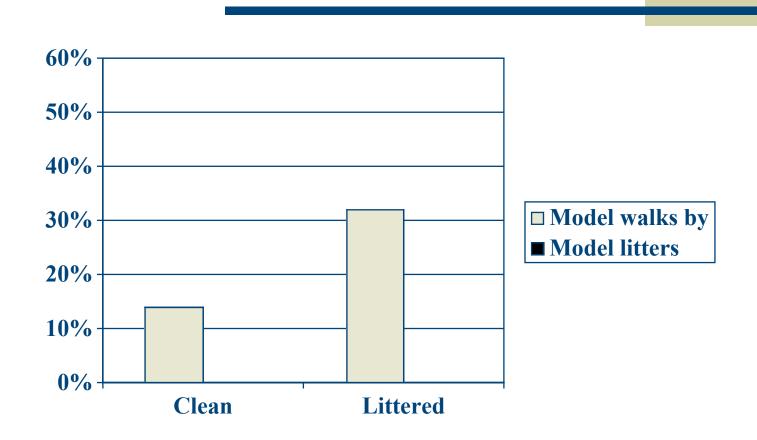
#### Examples of Behavior Change

P. Wesley Schultz California State University

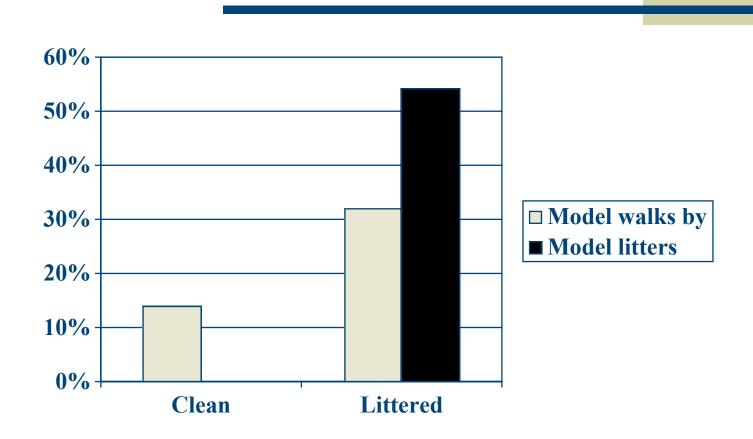


## Social Psychology



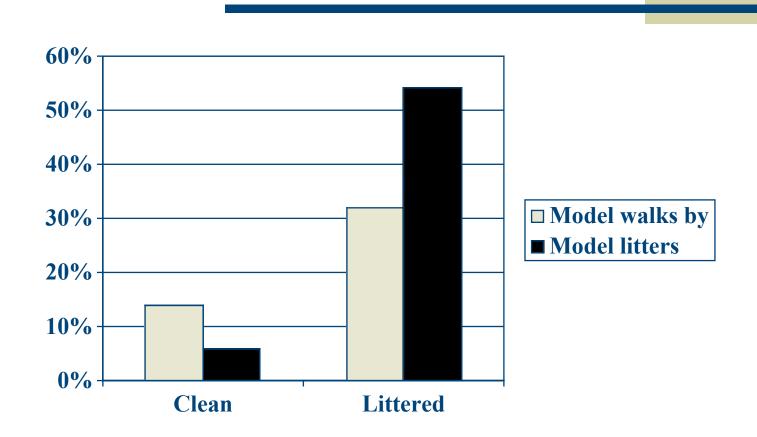
Source: Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce litter in public places. *Journal of Personality and Social Psychology, 58,* 1015-1026.

## Social Psychology



Source: Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce litter in public places. *Journal of Personality and Social Psychology, 58,* 1015-1026.

## Social Psychology



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**Social norms**—an individual's beliefs about the common and accepted behavior in a specific situation.

- 1. Formed through social interaction
- 2. Powerful influence on behavior
- 3. Most powerful in novel situations
- 4. Types of norms (injunctive and descriptive)

#### dirty secrets

48% of Tennesseans polled say that they have knowingly thrown trash on the street.

About 1 in 5 people say they do this on a regular basis.

Click here for survey results.

#### Tennessee's Had Enough. Have You?



## Applying Social Norms

--Curbside recycling

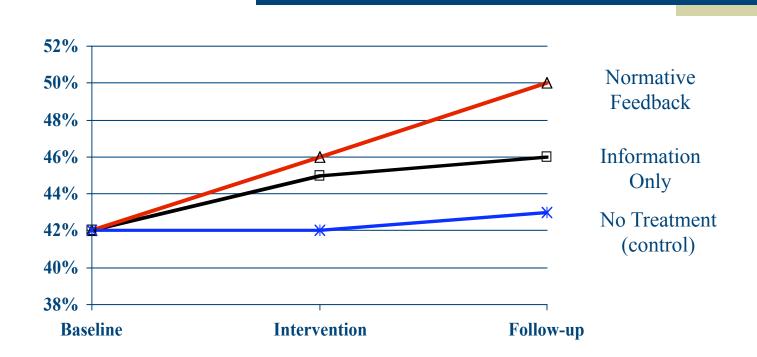




## Applying the Theory

- Curbside recycling
- Mandated by most cities in order to meet 50% diversion requirements set by State.
- Field experiment with 600 households for 8 weeks
- Information, no treatment control, descriptive normative feedback
- Baseline (4 weeks), intervention (4 weeks), follow-up (4 weeks)

#### Normative-based interventions



Change from baseline to follow-up for the normative feedback condition is significant (p<.05), and corresponds to a 19% increase in recycling rates!

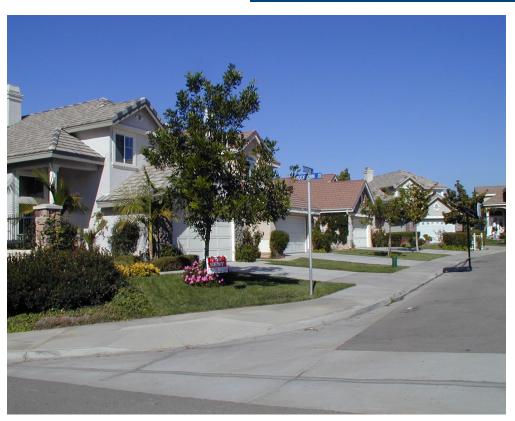
Source: Schultz, P. W. (1999). Changing behavior with normative feedback interventions: A field experiment of curbside recycling. *Basic and Applied Social Psychology, 21*, 25-36

## Applying the Theory #2

- -- Household energy conservation
- Energy conservation--studies funded by Hewlett Foundation following the 2000 "energy crisis"
- How to promote conservation? Money? Information?
  - Needed alternative
  - Survey of Californians showed self-interest, environmental, social responsibility main reasons identified for conservation
- Sample: 1207 households in San Marcos
- Experimental conditions: descriptive norms, information, environmental, financial, social responsibility
- Delivered on doorhangers to households for 4 consecutive weeks.
- Door-to-door interviews with household residents, meter readings of electricity consumption

## Applying the Theory

--Household energy conservation



**Note**: These findings are based on a thesis by Jessica Nolan, with assistance from a team of CSUSM students, including: Matt Dorlaque, Dulce Contreras, Veronica Bresiño, Monica Tinajera, Nigel Hartfield, Leezel Nazareno, Ron Tilos and Christina Wade.

## Join your neighbors in conserving energy

Summer is here and most San Marcos residents are finding ways to conserve energy at home.

"How are most San Marcos residents conserving this summer?"

By using fans instead of A/C!



#### Why?

According to a recent telephone survey conducted by Cal State San Marcos, 77% of San Marcos residents said that they often use fans instead of air conditioning to keep cool in the summer.

Using fans instead of air conditioning – San Marcos' Popular Choice!



Please direct questions or comments to Jessica Nolan at CSUSM: 760.750.3022

#### Energy Conservation

Summer is here and the time is right to conserve energy



#### Conservacion de energía

El verano esta aquí y es justo el tiempo para conservar energía



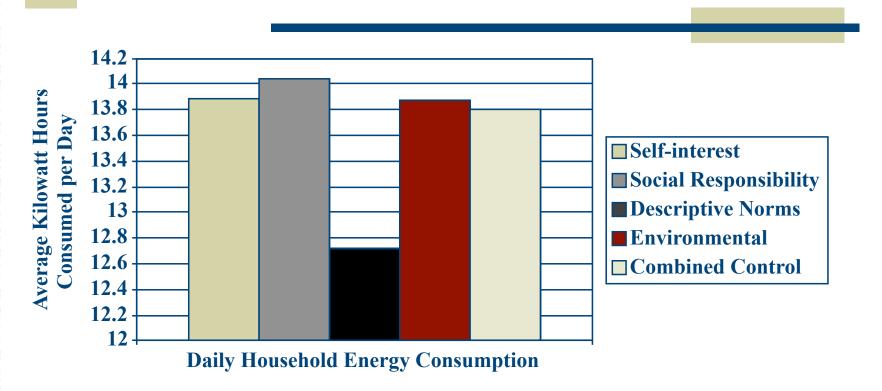






#### Results:

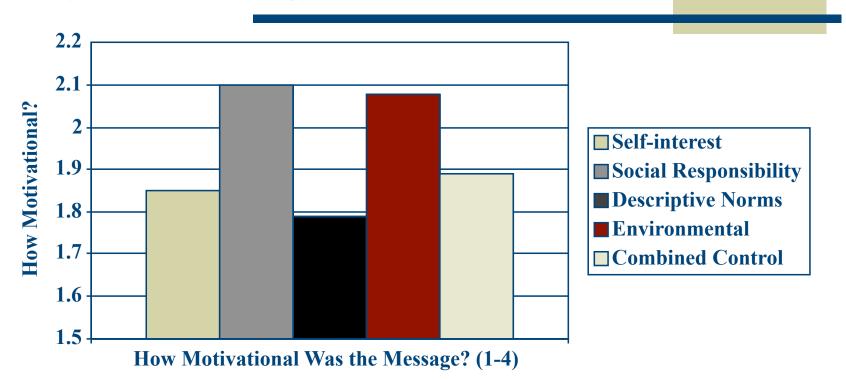
Average daily household energy consumption during the intervention



Results based on an ANCOVA using baseline consumption as a covariate. Pairwise comparisons show descriptive norms to be significantly lower than all other conditions.

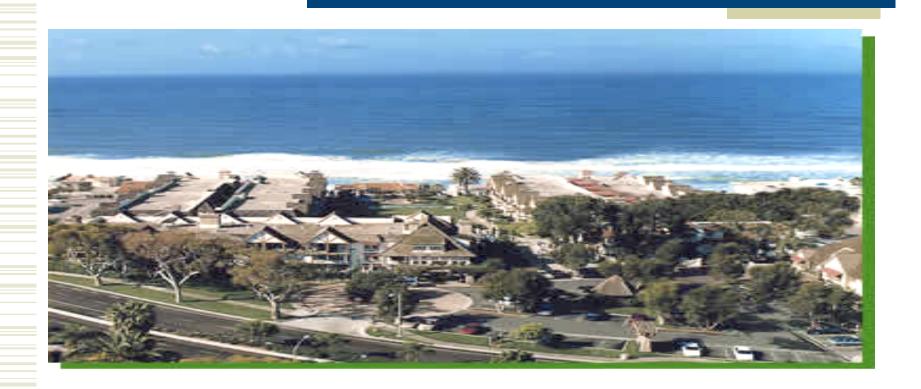
#### Results:

Q: "How much did the information on these doorhangers motivate you to conserve energy? 1 (not at all) to 4 (extremely)



Results based on oneway ANOVA. Pairwise comparisons show descriptive norms to be significantly lower than environmental and social responsibility.

# Field Implementation at a local Beach Resort



**Note**: My appreciation to the team of CSUSM students who worked on this experiment: Azar Khazian, Michelle Hynan, Joy Francisco, Christine Jarvis, and Jenny Tabanico.

#### Old Message:

Help us conserve our natural resources!

## DO YOU NEED FRESH TOWELS?

If you would like your towels replaced, please leave your used towels in the basket.

Towels left hanging on the towel rack tell us that you wish to reuse them.

Using towels more than once saves hundreds of pounds of detergent and thousands of gallons of water each year.

We are committed to doing our share to protect the environment.

THANK YOU for helping us to conserve water and save the environment!

## Different Rooms

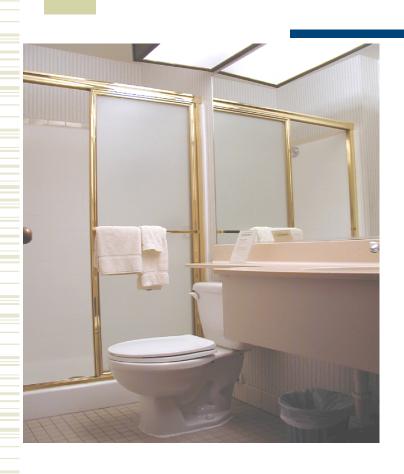








## Social Norm Messages



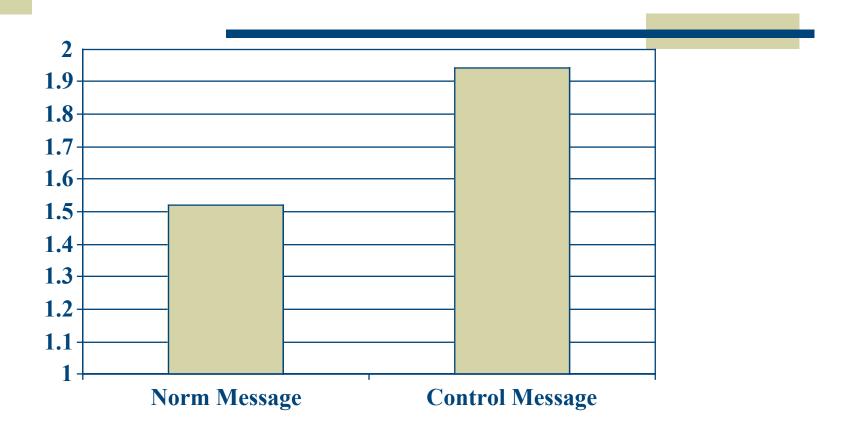


## Intervention Implementation

- Study focused on 132 condo units (separate studies of hotel)
- Randomly assigned rooms to experimental or control
- Total of 978 guest "stays" were analyzed
- Number of towels taken from the room (continuous up to 4)

#### Results

Number of towels taken out of the room on the first towel replacement day.



F(1,976)=10.74; p<.001). A 21% reduction in the number of towels used!

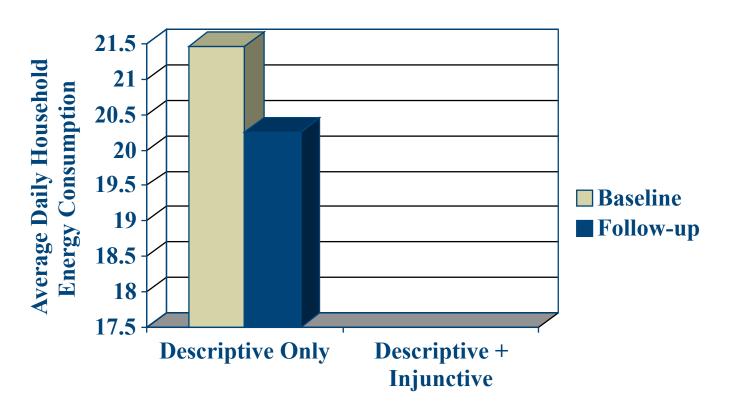
- Our Results:
  - Can cause behavior
  - Not perceived as motivational
  - Apply to both private and public behavior
- Problems in Application
  - Can serve as an anchor for folks already doing the behavior
  - Implemented incorrectly (awareness campaigns)

# Normative Social Influence -Buoys and Anchors

- Participants: 290 households with visible utility meters
- Distributed individual feedback and normative feedback to households for two consecutive weeks
- Conditions:
  - Usage level (above or below neighborhood average)
  - Emoticon (positive or negative <sup>(2)</sup>)

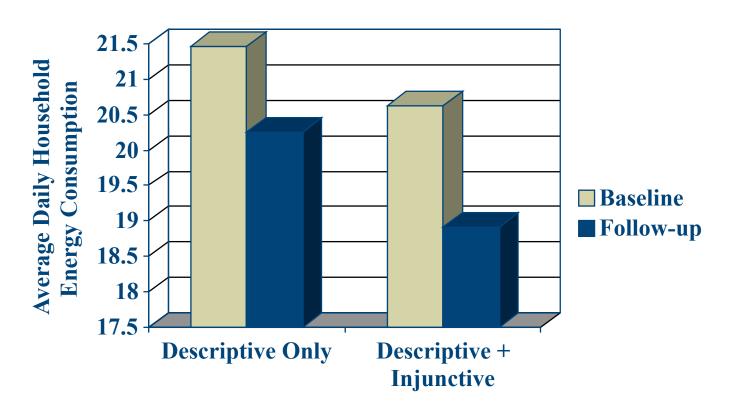
- Results

#### **High Consumers** $\otimes$



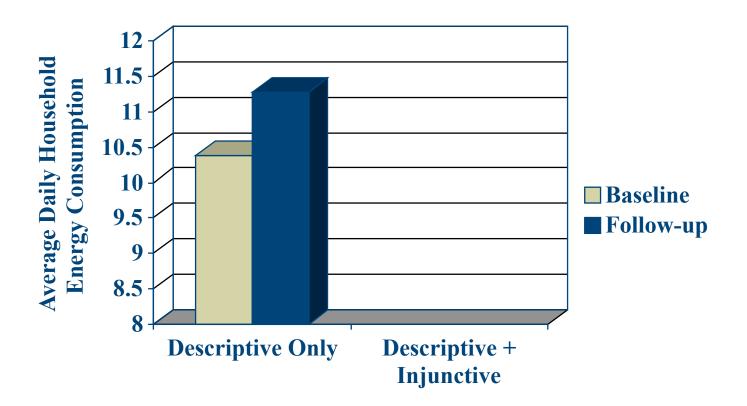
- Results

#### **High Consumers** $\otimes$



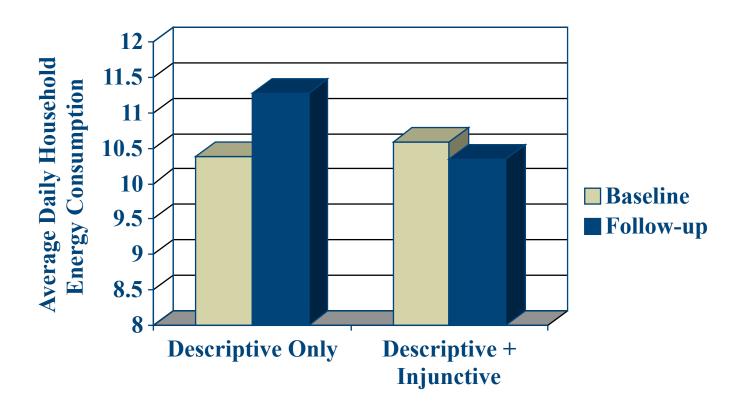
- Results

#### **Low Consumers** ©



- Results

#### **Low Consumers** ©



- Petrified Forest Experiments

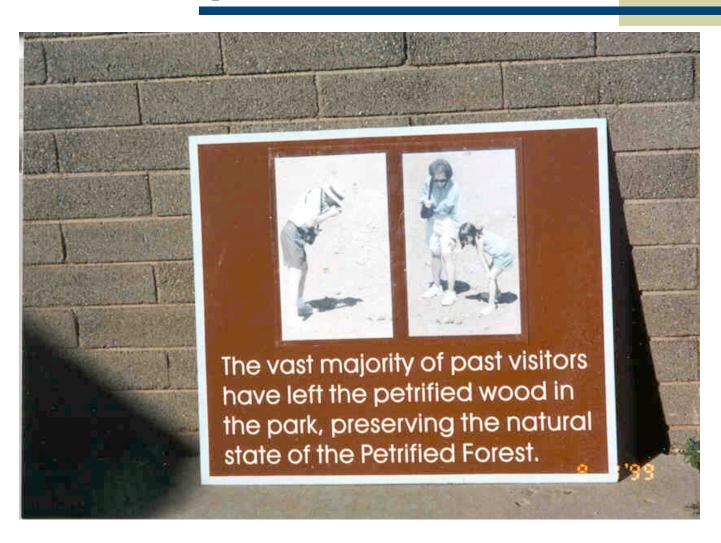
- Petrified Forest National Park
- "Your heritage is being vandalized every day by theft losses of petrified wood of 14 tons a year, mostly a small piece at a time"
- Alternative approach to focus on the injunctive norm *against* theft

- High Descriptive Norm



*Source*: Cialdini et al. (under review). Activating and aligning social norms for persuasive impact. *Journal of Personality and Social Psychology*.

- Low Descriptive Norm



- Injunctive Norm



#### Results

• Percentage of marked petrified wood stolen over a 5-week period

